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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/541,221

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EXAMINER

BOKHARI, SYED M

ART UNIT

PAPER NUMBER

2473

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,221	<b>Applicant(s)</b> WATABE ET AL.	
	<b>Examiner</b> SYED BOKHARI	<b>Art Unit</b> 2473	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,11 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 11 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's amendment filed on June 7<sup>th</sup>, 2010 has been entered. Claims 1-2, 11 and 14 have been amended. Claims 1-4, 6, 11 and 14-16 are still pending in the application.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-4, 6, 11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tahara et al. (US 6,671,323 B1) in view of Cheney et al. (US 5,576,765) and further in view of Sakazawa et al. (US 6,075,900).

Tahara et al. disclose an encoding system for encoding input video data and a decoding system for decoding encoded streams with the following features: regarding claim 1, user data at a first level of the hierarchical data structure and main data at a second level of the hierarchical data structure (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “the function is used to define extension data and user data for the GOP layer of the MPEG encoded bit stream” recited in column 12 lines 54-63), generating an output code stored in the hierarchical data structure by modifying the input code (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see “the video data output from the multiplexing circuit 417 has exactly the same ancillary data” recited in column 24 lines 9-14), wherein the main data included in the output code is identical to the main data included in the input code (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see “will not cause the ancillary data added to the input video data to be lost” recited in column 24 lines 15-20); regarding claim 2, wherein the hierarchical

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data structure conforms with the ISO 13818 standard (Fig. 1, a block diagram showing the configuration of a system that comprises a conventional MPEG encoder and MPE decoder, see “the MPEG technology is standardized as ISO/IEC 13818” recited in column 1 lines 14-18) and the parameter related to the amount of data encoded the input code is one of a bit rate value, a VBV (Video Buffering Verifier) buffer size value, and a VBV delay value; and the main data comprises compressed video data (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein the extension\_and\_user\_data(1) function is used to describe only the data elements defined by user\_data including VBV delay and VBV buffer)” recited in column 18 lines 25-45); regarding claim 3, wherein the first level of the hierarchical data structure is the Group of Pictures (GOP) layer; and the third level of the hierarchical data structure is the picture layer (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7); regarding claim 4, wherein the first level of the hierarchical data structure is the picture layer; and the third level of the hierarchical data structure is the Group of Pictures (GOP) layer. (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7) and regarding claim 6, further comprising the step of generating additional information for distinguishing the user data included in the input code from the other

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main data, wherein generation of the output code is advanced according to the additional information (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see "the extension\_and\_ user\_data(0) function is used to define extension data and user data for the sequence layer of an MPEG bit stream corresponds to generating additional information for distinguishing the user data included in the input code from the other main data" recited in column 12 lines 31-33); regarding claim 11, user data at a first level of the hierarchical data structure and main data at a second level of the hierarchical data structure (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see "the function is used to define extension data and user data for the GOP layer of the MPEG encoded bit stream" recited in column 12 lines 54-63), multiplexing section which produces an output code in which the input code is modified (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see "the video data output from the multiplexing circuit 417 has exactly the same ancillary data" recited in column 24 lines 9-14), and including in the output code, the main data included in the input code (Fig. 31, a block diagram showing the configuration of an MPEG decoder, see "will not cause the ancillary data added to the input video data to be lost" recited in column 24 lines 15-20); regarding claim 14, wherein the hierarchical data structure conforms with the ISO 13818 standard (Fig. 1, a block diagram showing the configuration of a system that comprises a conventional MPEG encoder and MPE decoder, see "the MPEG technology is standardized as ISO/IEC 13818" recited in column 1 lines 14-18), the parameter related to the amount of data encoded by the input code is one of a bit rate value, a VBV (Video

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Buffering Verifier) buffer size value, and a VBV delay value; and the main data comprises compressed video data (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein the extension\_and\_user\_data(1) function is used to describe only the data elements defined by user\_data including VBV delay and VBV buffer)” recited in column 18 lines 25-45); regarding claim 15, wherein the first level of the hierarchical data structure is the Group of Pictures (GOP) layer; and the third level of the hierarchical data structure is the picture layer (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7) and regarding claim 16, wherein the first level of the hierarchical data structure is the picture layer; and the third level of the hierarchical data structure is the Group of Pictures (GOP) layer. (Fig. 26, a schematic diagram showing the data of a sequence layer, GOP layer, and picture layer, see “wherein discloses in the different levels corresponding to the GOP layers and the picture layers” recited in column 5 lines 29-30, column 12 lines 55-60 and column 13 lines 1-7).

Tahara et al. do not fully disclose the following features: regarding claim 1, a code translation method comprising the step of receiving an input code stored in a hierarchical data structure, the input code including a parameter which determines the allowable range of data amount in the input code, storing the user data and main data in a data buffer, moving the user data to a third level of the hierarchical data structure and

changing the parameters to reflect the change in code size effected by moving the user data; regarding claim 11, a code translation device comprising, a data analyzing section adapted to identify in an input code stored in a hierarchical data structure a parameter which determines the allowable range of data amount in the input code, by moving the user data to a third level of the hierarchical data structure, changing the parameter to reflect the change in code size effected by moving the user data.

Cheney et al. disclose a video decoder intended to decode and decompress compressed encoded video signals wherein the method, apparatus, and system of the invention are useful in decoding broadcast signals, cablecast signals, and digital network signals, as well as in high definition television, interactive television, multimedia, video on demand, video conferencing, and digital video recording with the following features: regarding claim 1, a code translation method comprising the step of receiving an input code stored in a hierarchical data structure, the input code including a parameter which determines the allowable range of data amount in the input code (Fig. 4, a block diagram of the functional units of the MPEG-2 Draft Standard compliant decoder of the invention see “determination of the number of bits read from the encoded bit stream is accomplished by a length field in the instruction, by the address of the register, or by the VLC decoder. This becomes the code length, which is used by the shifter 421 to position the next parameter in the bit stream so that it is now left justified for the controller 401” recited in column 12 lines 4-44), storing the user data and main data in a data buffer (Fig. 4, a block diagram of the functional units of the MPEG-2 Draft Standard compliant decoder of the invention, see “an external memory 601, includes a



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Compressed Data Buffer 611 for receiving data from the host interface 202 via the FIFO buffer 241, and frame buffers 621, 623, and 625, for receiving and storing decoded frames, including future frames and past frames” recited in column 7 lines 26-34), changing the parameters to reflect the change in code size effected by moving the user data (Fig. 4, a block diagram of the functional units of the MPEG-2 Draft Standard compliant decoder of the invention, see “the variable length code requires translation to an expanded number of bits” recited in column 12 lines 4-12 and lines 22-27); regarding claim 11, a code translation device comprising, a data analyzing section adapted to identify in an input code stored in a hierarchical data structure a parameter which determines the allowable range of data amount in the input code (Fig. 4, a block diagram of the functional units of the MPEG-2 Draft Standard compliant decoder of the invention see “determination of the number of bits read from the encoded bit stream is accomplished by a length field in the instruction, by the address of the register, or by the VLC decoder. This becomes the code length, which is used by the shifter 421 to position the next parameter in the bit stream so that it is now left justified for the controller 401” recited in column 12 lines 4-44), changing the parameter to reflect the change in code size effected by moving the user data (Fig. 4, a block diagram of the functional units of the MPEG-2 Draft Standard compliant decoder of the invention, see “the variable length code requires translation to an expanded number of bits” recited in column 12 lines 4-12 and lines 22-27);

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Tahara et al. by using the features, as taught by

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Cheney et al., in order to provide moving the stored user data to a third level of the hierarchical data structure. The motivation of using these functions is that it discloses a video decoder intended to decode and decompress compressed encoded video signals wherein the method, apparatus, and system of the invention are useful in decoding broadcast signals, cablecast signals, and digital network signals, as well as in high definition television, interactive television, multimedia, video on demand, video conferencing, and digital video recording.

Tahara et al. and Cheney et al. do not fully disclose the following features: regarding claim 1, moving the stored user data to a third level of the hierarchical data structure; regarding claim 11, by moving the user data to a third level of the hierarchical data structure;

Sakazawa et al. disclose a method and apparatus for coded moving picture data hierarchy formation with the following features: regarding claim 1, moving the stored user data to a third level of the hierarchical data structure (Fig. 10, a block diagram showing the third embodiment of the invention, see “low frequency components of P picture data are assigned to a third hierarchy” recited in column 2 lines 10-34); regarding claim 11, by moving the user data to a third level of the hierarchical data structure (Fig. 10, a block diagram showing the third embodiment of the invention, see “low frequency components of P picture data are assigned to a third hierarchy” recited in column 2 lines 10-34).

It would have been obvious to one of the ordinary skill in the art at the time of invention to modify the system of Tahara et al. with Cheney et al. by using the features,

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as taught by Sakazawa et al., in order to provide moving the stored user data to a third level of the hierarchical data structure. The motivation of using these functions is that it discloses an apparatus for coded moving picture data hierarchy formation.

### ***Response to Arguments***

6. Applicant's arguments with respect to claim 1-4, 6, 11 and 14-16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SYED BOKHARI whose telephone number is (571)270-

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3115. The examiner can normally be reached on Monday through Friday 8:00-17:00 Hrs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang B. Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Syed Bokhari/  
Examiner, Art Unit 2473  
8/24/2010

/Steven H.D Nguyen/  
Primary Examiner, Art Unit 2473

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